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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,504	01/13/2005	Hendrikus Cornelis Zegers	122023	2859

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OLIFF & BERRIDGE, PLC
P.O. BOX 320850
ALEXANDRIA, VA 22320-4850

EXAMINER	
TENTONI, LEO B	
ART UNIT	PAPER NUMBER
1791	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/519,504	ZEGERS, HENDRIKUS CORNELIS	
	Examiner	Art Unit	
	Leo B. Tentoni	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) *9-11 and 15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 12-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *05312005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-8 and 12-14, drawn to a process of making a fiber or film.

Group II, claim(s) 9 and 10, drawn to a fiber.

Group III, claim(s) 11 and 15, drawn to a film.

2. The inventions listed as Groups I - III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The process of Group I is specifically adapted to manufacture two products, and does not show a single inventive concept in the manufacture of two products. Furthermore, the claims of Group I are unpatentable over Alexander et al (U.S. Patent 5,273,703 A) and Pierini et al (U.S. Patent 5,445,779 A). Therefore, lack of unity is held by the examiner in accordance with PCT Rule 13 and 37 CFR 1.475.

3. During a telephone conversation with Christopher W. Brown (by Examiner Newton Edwards, GAU 1794), applicant's representative, on 09 November 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-8 and 12-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-11 and 15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting

rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Priority

5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4, 6, 7, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Pierini et al (U.S. Patent 5,445,779 A).

Pierini et al (see the entire document, in particular, col. 4, lines 17-41; col. 5, lines 9-27; col. 5, line 38 to col. 7, line 33) teaches a process of making a film from an aromatic heterocyclic polymer including the steps of forming a film, loading (e.g., drawing, stretching) in the presence of a processing aid (e.g., polyphosphoric acid), and removing the processing aid and/or heat-treating the film.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pierini et al (U.S. Patent 5,445,779 A) as applied to claims 1-4, 6, 7, 12 and 14 above, and further in view of Alexander et al (U.S. Patent 5,273,703 A).

Alexander et al (see the entire document, in particular, col. 5, lines 1-57) teaches a process of making a fiber from aromatic heterocyclic polymer including the step of treating a fiber (of an aromatic heterocyclic polymer) with steam, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Pierini et al in view of Alexander et al principally in order to remove a processing aid (e.g., water). Furthermore, all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time the invention was made (*KSR*

International Co. v. Teleflex Inc., 550 U.S. ____, 82 USPQ2d 1385 (2007)).

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Pierini et al (U.S. Patent 5,445,779 A) alone, or in combination with the admitted prior art as set forth on page 2, line 17 to page 3, line 2 of the instant specification.

Aromatic heterocyclic polymer of PIPD would have been obvious to one of ordinary skill in the art at the time the invention was made in view of Pierini et al principally because Pierini et al teaches the manufacture of film made of aromatic heterocyclic polymer. Also, the admitted prior art teaches that it is known in the art to manufacture (and treat) fibers and films made from an aromatic heterocyclic polymer of PIPD. Furthermore, the substitution of one known material (i.e., PIPD) for another (i.e., polybenzazole) would have yielded predictable results to one of ordinary skill in the art at the time the invention was made (*KSR International Co. v. Teleflex Inc.*, 550 U.S. ____, 82 USPQ2d 1385 (2007)).

11. Claims 1-4, 6, 7, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen (EP 0384425 A2) in combination with Pierini et al.

Allen (see the entire document, in particular, page 2, lines 43-48) teaches a process of making a fiber by the process as claimed, except that Allen does not explicitly teach aromatic heterocyclic polymers (Allen teaches para-aramid polymers), which

is taught by Pierini et al (see the entire document, in particular, col. 4, lines 17-41; col. 5, lines 9-27; col. 5, line 38 to col. 7, line 33) and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Allen in view of Pierini et al principally because aromatic heterocyclic polymers and para-aramid polymers are both used to make high-modulus, high-tenacity fibers and films. Furthermore, the substitution of one known material (i.e., aromatic heterocyclic polymer) for another (i.e., para-aramid polymer) would have yielded predictable results to one of ordinary skill in the art at the time the invention was made (*KSR International Co. v. Teleflex Inc.*, 550 U.S. ____, 82 USPQ2d 1385 (2007)).

12. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen (EP 0384425 A2) in combination with Pierini et al (U.S. Patent 5,445,779 A) as applied to claims 1-4, 6, 7, 12 and 14 above, and further in view of Alexander et al (U.S. Patent 5,273,703 A).

Alexander et al (see the entire document, in particular, col. 5, lines 1-57) teaches a process of making a fiber from aromatic heterocyclic polymer including the step of treating a fiber (of an aromatic heterocyclic polymer) with steam, and such would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Allen in view of Alexander et al principally in order to remove a processing aid (e.g., water). Furthermore, all of the claimed elements were

known in the prior art and one skilled in the art could have combined the elements as claimed with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time the invention was made (*KSR International Co. v. Teleflex Inc.*, 550 U.S. ____, 82 USPQ2d 1385 (2007)).

13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Allen (EP 0384425 A2) in combination with Pierini et al (U.S. Patent 5,445,779 A) alone, or Allen (EP 0384425 A2) in combination with Pierini et al (U.S. Patent 5,445,779 A) in combination with the admitted prior art as set forth on page 2, line 17 to page 3, line 2 of the instant specification.

Aromatic heterocyclic polymer of PIPD would have been obvious to one of ordinary skill in the art at the time the invention was made in view of Allen in combination with Pierini et al principally because Pierini et al teaches the manufacture of film made of aromatic heterocyclic polymer. Also, the admitted prior art teaches that it is known in the art to manufacture (and treat) fibers and films made from an aromatic heterocyclic polymer of PIPD. Furthermore, the substitution of one known material (i.e., PIPD) for another (i.e., polybenzazole) would have yielded predictable results to one of ordinary skill in the art at the time the invention was made (*KSR International Co. v. Teleflex Inc.*, 550 U.S. ____, 82 USPQ2d 1385 (2007)).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo B. Tentoni whose telephone number is (571) 272-1209. The examiner can normally be reached on Monday - Friday (6:30 A.M. - 3:00 P.M.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Leo B. Tentoni/
Primary Examiner, Art Unit 1791